

What is claimed is:

1. An image forming apparatus comprising:
 - a storage device that stores apparatus
 - 5 identification information for identifying the image forming apparatus, and a plurality of programs for realizing optional functions, respectively;
 - a program management device that holds start program identification information indicative of
 - 10 whether each of the plurality of programs has been set to a program to be executed at a start of the image forming apparatus, in association with each of the plurality of programs; and
 - a license management device that permits use of
 - 15 the plurality of programs on a program-by-program basis; and
 - wherein said license management device comprises:
 - a license information acquisition device that
 - acquires license information including apparatus
 - 20 specifying information and program specifying information for specifying a program designated from an external device as a program to be executed at the start of the image forming apparatus;
 - a determination device that determines, by
 - 25 referring to the start program identification information held by said program management device, whether the program identified by the program

identification information has been set to a program to be executed at the start of the image forming apparatus, when the apparatus specifying information included in the license information acquired by said license information acquisition device and the apparatus identification information stored in said storage device match, and the program specified by the program specifying information included in the license information is identical to any of the plurality of programs; and

a setting device that sets the program specified by the program specifying information to a program to be executed at the start of the image forming apparatus, when said determination device determines that the program specified by the program specifying information has not been set to a program to be executed at the start of the image forming apparatus.

2. An image forming apparatus as claimed in claim 1, further comprising an input device via which information can be inputted by operation of an operator, and an external storage device that holds the license information, and

wherein said license information acquisition device is responsive to input of predetermined instruction information via said input device by the operation of the operator, for reading and acquiring the license information from said external storage

device.

3. An image forming apparatus as claimed in claim 1, further comprising a communication device that communicates with an external device having a function
5 of inputting the license information by operation of an operator, and a function of transmitting the license information inputted by the operation of the operator, and

wherein said license information acquisition
10 device receives and acquires the license information transmitted from the external device, via said communication device.

4. An image forming apparatus as claimed in claim 1, further comprising a communication device that
15 communicates with an external device capable of holding the license information, and an inquiry device that periodically inquires of the external device via said communication device whether the license information is held in the external device, and

20 wherein said license information acquisition device is responsive to a notification that the license information is held in the external device, given by the external device in response to the inquiry, for acquiring the license information from the external
25 device via said communication device.

5. An image forming apparatus as claimed in claim 1, further comprising a clock device that outputs

time information, and

wherein the license information includes an expiration date of the program specified thereby, and

wherein said license management device comprises:

5 a license information holding device that holds the license information associated with each of programs set to a program to be executed at the start of the image forming apparatus;

an expiration date determining device that
10 compares the expiration date included in the license information associated with each of the programs set to a program to be executed at the start of the image forming apparatus with the time information outputted from said clock device, to thereby determine whether
15 the expiration date has passed; and

a limiting device that limits execution of each of the programs set to a program to be executed at the start of the image forming apparatus, based on a result of the determination by said expiration date
20 determining device.

6. An image forming apparatus as claimed in claim 1, further comprising a totalizing device that totalizes amounts of usage of apparatus resources used by operation of the programs on a program-by-program
25 basis, and

wherein the license information includes an upper limit of an amount of usage of resources usable by each

program specified by the license information, and

wherein said license management device comprises:

a license information holding device that holds
the license information associated with each of

5 programs set to a program to be executed at the start
of the image forming apparatus;

a usage determining device that determines whether
the amount of usage of the apparatus resources used by
each of the programs set to a program to be executed at
10 the start of the image forming apparatus has reached
the upper limit thereof; and

a limiting device that limits execution of each of
the programs set to a program to be executed at the
start of the image forming apparatus, based on a result
15 of the determination by said usage determining device.

7. An image forming apparatus as claimed in
claim 1, wherein the license information comprises
encrypted information, and said license management
device comprises a decrypting device that decrypts the
20 license information.

8. A method of controlling an image forming
apparatus including a storage device that stores
apparatus identification information for identifying
the image forming apparatus, and a plurality of
25 programs for realizing optional functions, respectively,
and a program management device that holds start
program identification information indicative of

whether each of the plurality of programs has been set to a program to be executed at a start of the image forming apparatus, in association with each of the plurality of programs,

5 the method comprising:

 a license information acquisition step of acquiring license information including apparatus specifying information and program specifying information for specifying a program designated from an
10 external device as a program to be executed at the start of the image forming apparatus;

 a determination step of determining, by referring to the start program identification information held by said program management device, whether the program
15 identified by the program identification information has been set to a program to be executed at the start of the image forming apparatus, when the apparatus specifying information included in the license information acquired in said license information
20 acquisition step and the apparatus identification information stored in said storage device match, and the program specified by the program specifying information included in the license information is identical to any of the plurality of programs; and

25 a setting step of setting the program specified by the program specifying information to a program to be executed at the start of the image forming apparatus,

when it is determined in said determination step that the program specified by the program specifying information has not been set to a program to be executed at the start of the image forming apparatus.

- 5 9. A program for controlling an image forming apparatus including a storage device that stores apparatus identification information for identifying the image forming apparatus, and a plurality of programs for realizing optional functions, respectively,
- 10 and a program management device that holds start program identification information indicative of whether each of the plurality of programs has been set to a program to be executed at a start of the image forming apparatus, in association with each of the
- 15 plurality of programs,

the program comprising:

- a license information acquisition module for acquiring license information including apparatus specifying information and program specifying
- 20 information for specifying a program designated from an external device as a program to be executed at the start of the image forming apparatus;

- a determination module for determining, by referring to the start program identification
- 25 information held by said program management device, whether the program identified by the program identification information has been set to a program to

be executed at the start of the image forming apparatus,
when the apparatus specifying information included in
the license information acquired by said license
information acquisition module and the apparatus
5 identification information stored in said storage
device match, and the program specified by the program
specifying information included in the license
information is identical to any of the plurality of
programs; and

10 a setting module for setting the program specified
by the program specifying information to a program to
be executed at the start of the image forming apparatus,
when it is determined by said determination module that
the program specified by the program specifying
15 information has not been set to a program to be
executed at the start of the image forming apparatus.

10. A computer-readable storage medium storing a
program for controlling an image forming apparatus
including a storage device that stores apparatus
20 identification information for identifying the image
forming apparatus, and a plurality of programs for
realizing optional functions, respectively, and a
program management device that holds start program
identification information indicative of whether each
25 of the plurality of programs has been set to a program
to be executed at a start of the image forming
apparatus, in association with each of the plurality of

programs,

the program comprising:

a license information acquisition module for
acquiring license information including apparatus
5 specifying information and program specifying
information for specifying a program designated from an
external device as a program to be executed at the
start of the image forming apparatus;

a determination module for determining, by
10 referring to the start program identification
information held by said program management device,
whether the program identified by the program
identification information has been set to a program to
be executed at the start of the image forming apparatus,
15 when the apparatus specifying information included in
the license information acquired by said license
information acquisition module and the apparatus
identification information stored in said storage
device match, and the program specified by the program
20 specifying information included in the license
information is identical to any of the plurality of
programs; and

a setting module for setting the program specified
by the program specifying information to a program to
25 be executed at the start of the image forming apparatus,
when it is determined by said determination module that
the program specified by the program specifying

information has not been set to a program to be
executed at the start of the image forming apparatus.